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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/723,137

11/25/2003

Charles D. Claude

50623.339

9454

7590

02/29/2008

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EXAMINER

SILVERMAN, ERIC E

ART UNIT

PAPER NUMBER

1618

MAIL DATE

DELIVERY MODE

02/29/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/723,137	<b>Applicant(s)</b> CLAUDE ET AL.	
	<b>Examiner</b> Eric E. Silverman, PhD	<b>Art Unit</b> 1618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 11-14 and 32-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-14 and 32-39 is/are rejected.
- 7) ☒ Claim(s) 35-37 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

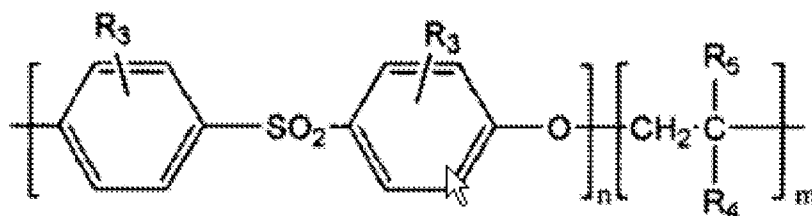
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|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____.                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: ____.                          |

### DETAILED ACTION

Applicants' response, filed 2/4/2008, has been received. Claims 1 – 30 and 32 – 39 are pending, claims 1 - 10, and 15 – 30 are withdrawn, and claims 11 – 14 and 32 – 39 are treated on the merits in this action.

#### *Claim Objections*

Claims 35 – 37 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 11 requires that the elastomeric polymer be selected from a specific group. Claim 33 requires that there be a block copolymer, wherein at least one block is elastomer and at least one is sulfone. Claim 32 requires that the elastomeric polymer be bound to the polysulfone. Claim 35, which ultimately depends on claims 33, 32 and 11, includes embodiments where the polymer bound to the polysulfone is not elastomeric. For example, in the

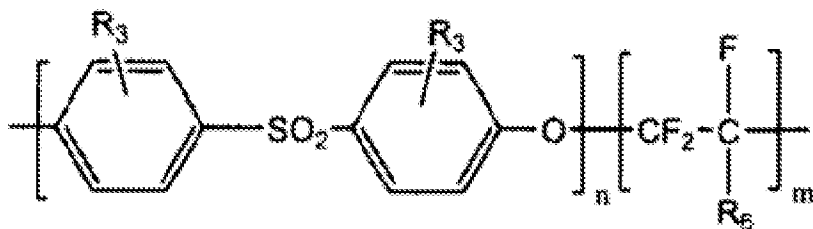


structure

when R<sub>5</sub> and R<sub>6</sub> are both hydrogen, or when one is hydrogen and one is methyl, the polymer conjugated to the sulfone is polyethylene or polypropylene, respectively,

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which are not elastomers. As another example, in the structure



when R6 is hydrogen, the polymer conjugated to the sulfone is poly(trifluoroethylene) which is not an elastomer. When R6 is CF3 (as in claim 37), the polymer conjugated to the sulfone is poly(perfluoropropylene), which is not an elastomer.

The above are merely exemplary; there are many permutations of R groups in the instant claims that are not elastomers, and thus do not read on a product of claims 11 and 32.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 11 – 14 and 32 – 34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. **This is a new matter rejection.**

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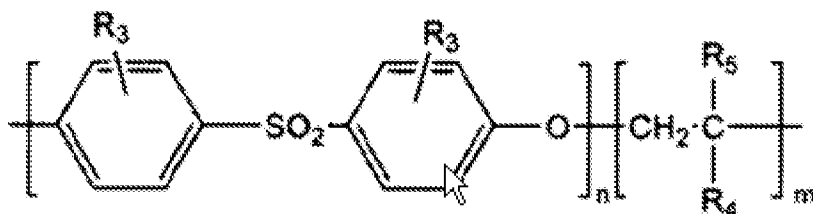
A careful review of the original disclosure reveals no support for the now claimed "polymers and copolymers of acrylates or methacrylates". The specification only provides support for acrylates with long side chains and methacrylates with long side chains. There is no support for all acrylates or all methacrylates. Claims 11 – 14, and 32 – 34 depend on claim 11 and include also this new matter.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 35 – 37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

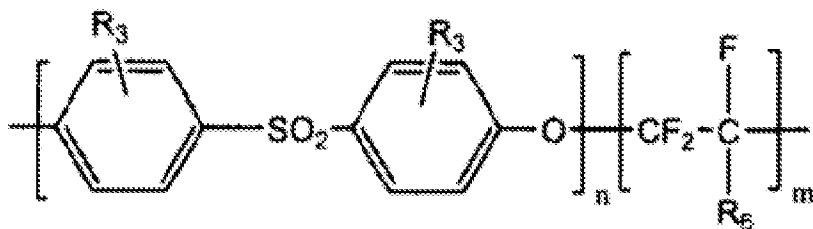
The claims depend on claim 34, which requires a block copolymer wherein one block is a polysulfone and the other block is an elastomer. However, there are several embodiments of the instant claims wherein the second block, conjugated to the sulfone, is not an elastomer. For example, in the structure



when R5 and R6 are both hydrogen, or when one is hydrogen and one is methyl, the polymer conjugated to the sulfone is polyethylene or polypropylene, respectively,

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which are not elastomers. As another example, in the structure



when R6 is hydrogen, the polymer conjugated to the sulfone is poly(trifluoroethylene) which is not an elastomer. When R6 is CF3 (as in claim 37), the polymer conjugated to the sulfone is poly(perfluoropropylene), which is not an elastomer.

The above are only exemplary, there are many other structures encompassed by the claims where there is no elastomeric polymer block. As such, the artisan would not be certain if the claim reads on only those embodiments where the non-sulfone block is an elastomer, or if the claim is intended to read on all polymers encompassed by the structures in the claims.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11 – 14, 33, 38, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2005/0129731 to Horres et al.

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Horres teaches coatings for medical devices such as stents (abstract). The polymers are polysulfones and the polysulfones are mixed with other polymers, such as those of claim 5. Claim 5 includes both elastomeric polymers such as butylacrylate (of instant claim 39), methacrylates, acrylates, PEG, and copolymers thereof (the suggested copolymers of polyacrylate and PEG reading on polyethylene oxide acrylates of instant claim 38).

Horres does not require an elastomeric polymer with the polysulfone.

It would have been prima facie obvious to a person of ordinary skill in the art at the time of the invention to include an elastomeric polymer with the polysulfone of Horres. This follows a direct suggestion in Horres, who points out several elastomeric polymers, such as those of instant claims 38 and 39, that may be blended with a polysulfone to form a stent coating.

### ***Response to Arguments***

Applicants' arguments have been fully considered, but are not persuasive. Applicants argue that Horres does not explicitly teach the claimed blend of polysulfone and elastomer. In response, it is well established that a reference need not anticipate a claim to render the claim obvious. Here, although the Horres reference is not anticipatory, it renders the claims obvious for at least the reasons discussed above.

### ***Conclusion***

Claims 35 – 37 are objected to. Claims 11 – 14, 32 – 39 are rejected. No claims are allowed.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric E. Silverman, PhD, whose telephone number is (571)272-5549. The examiner can normally be reached on Monday to Thursday 7:00 am to 5:00 pm and Friday 7:00 am to noon.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Hartley can be reached on 571 272 0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael G. Hartley/  
Supervisory Patent Examiner, Art Unit 1618

Eric E. Silverman, PhD  
Art Unit 1618